

Remarks

This communication responds to the Office Action mailed July 2, 2009 for the application captioned above. By this amendment, claims 6, 11 and 14 are canceled, without prejudice or disclaimer of the subject matter therein, and claims 7, 12 and 13 are amended. No new matter has been added as a result of this amendment. Support for amended claims 7, 12 and 13 may be found in the originally filed specification, for example, in Figure 1 and in paragraphs [0035] – [0038] and [0047] of the pre-grant publication thereof (US 2007/0014673 A1). The following remarks are respectfully submitted.

Applicants have carefully considered the remarks of the Examiner in the pending office action, both in the new rejection and in the response to Applicants' previous arguments, and are grateful to the Examiner for providing the detailed explanation to clarify his position, concerning the Llewellyn reference.

§103 Rejections

Claims 7, 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haberlander et al. (US 6,457,944) in view of Llewellyn (GB 2,130,305) and Takahashi et al. (US 5,664,937). Applicants have canceled claim 14, without prejudice or disclaimer of the subject matter therein, rendering the rejection of claim 14 moot. Applicants respectfully traverse the rejection of claims 7 and 13, based upon the amendment to independent claim 13 and the following remarks.

The Examiner has admitted that Haberlander et al. do not teach varying a rotating speed of a cam during a compression stroke of the pump, but has referenced Llewellyn and Takahashi et al. to assert that the teaching of either would motivate one skilled in the art to modify Haberlander et al. so that the rotating speed of the cam is varied during the compression stroke, in order to achieve a constant linear speed of the pump diaphragm. Although Applicants may not necessarily agree with the Examiner's assertion to support the rejection, Applicants have amended independent claim 13 in order to further specify the claimed method for controlling a metering cycle of a pump. For example, claim 13 specifies steps for providing input to a

positional controller, which is coupled to a controller of a motor of the pump, and a step in which the positional controller calculates a currently required rotating speed of the motor, which is an electronically commuting (EC) electric motor, **only if** a current position of the rotating cam (rotated by the shaft of the motor) corresponds to a compression stroke of the metering cycle of the pump, so that the motor controller will adjust a rotating field inside the motor, to reach the calculated currently required rotating speed, during the compression stroke of the metering cycle.

Applicants respectfully assert that, based upon their best understanding of the references cited above, none of Haberlander et al., Llewellyn and Takahashi et al., either independently or in combination, teach or suggest every limitation of amended independent claim 13. For example, as previously discussed, neither Haberlander et al. nor Llewellyn teach or suggest adjusting a rotating speed of a motor during a compression stroke of a metering cycle, and Takahashi et al. do not teach or suggest adjusting a rotating speed of a motor based upon a detected position of a cam, but rather upon pressure measurements. Furthermore, with reference to column 3, line 64 – column 5, line 30 of Takahashi et al., according to Applicants' best understanding of this passage, Takahashi do not teach that adjustments to a speed of the motor be limited to a particular stroke of either of the plungers 5. Finally, Applicants respectfully request that the Examiner consider that Applicants are not attempting to claim a broad method for producing a uniform flow rate; rather, Applicants' claims are directed toward a particular method, in which specific limitations are imposed upon how a rotating speed of a motor, which drives a pump, is controlled to control a metering cycle of the pump.

Claims 6, 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haberlander et al. in view of Llewellyn and Takahashi et al., as applied to claim 1 above, and further in view of Weigold (WO 02/087057, as translated in US 2004/0027014). Applicants have canceled claims 6 and 11, rendering the rejection of these claims moot. Applicants respectfully traverse the rejection of claim 12, based upon the amendment to claim 13, on which claim 12 depends, and upon the remarks presented above.

In view of the foregoing, it is submitted that this application is in condition for allowance. Favorable consideration and prompt allowance of the application are respectfully requested. The Examiner is invited to telephone the undersigned if the Examiner believes it would be useful to advance prosecution.

Respectfully submitted,

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Date

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